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## ABSTRACT

The purpose of providing guidance for senior high school students is to promote learning, increase the opportunity of entering into universities, and to assist in choosing a proper path by facilitating their self-understanding. This paper describes research carried out in five areas: (1) the revision of the "Scale of Learning Strategies of Senior High School Students"; (2) research into learning problems and the use of teaching learning strategies for these students in Taiwan; (3) development of a training project for teachers that focuses on guidance skills for learning strategies; (4) testing the teachers who have accepted the guidance skills training; and (5) identifying the students who have inferior learning strategies and implementing small group counseling. Findings suggest that the scale of learning strategies could be promoted or revised. Seminar activities are needed to expand guidance knowledge and abilities of senior high school teachers. Other suggestions include fulfilling class guidance of learning strategies, considering individual differences with group guidance, emphasizing self-management, and reducing test anxiety. (JDM)

# A Study on Learning Strategies and The Effect of Group Counseling for Learning of Senior High Students

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## Rationale

The purpose of providing guidance for senior high students is to promote learning, increase the opportunity of entering into universities and to assist in choosing a proper path by facilitating their self-understanding.

However, various studies have discovered that the senior high students in Taiwan face extreme confusion regarding their learning. Many of them have inferior learning strategies and a lack of motivation due to their poor self-concept and emotional state. As a result, if we can offer appropriate guidance strategies we will be able to assist students in their personal and academic development. This will promote self-confidence as well as prepare them for advanced studies.

There are different learning problems for students at the various levels; such as lack of attentiveness, test anxiety, poor note-taking skills, inability to use learning plans, and lack of learning motivation. Recently, we have found through a senior high schools' survey and teachers' seminar that learning problems generally exist for senior high students. Students especially do not know how to learn, take notes, or look up the data. Although the need of learning guidance for senior high students is very urgent, there is no proper learning strategy to deal with such a need in the high schools. In particular, guidance is given students with learning problems to overcome their handicaps, as well as to cultivate a finer learning attitude and habit. Consequently, how to research and study an appropriate learning strategy for focusing on senior high students' learning conditions is the task of greatest urgency at present.

The definition of so-called "Learning strategy" is very wide, and each scholar has a different viewpoints. Broadly speaking, it is any behavior or thinking activity that is helpful for recall, retention, arrangement and acquisition of knowledge for learners, including the related strategies of learning techniques and cognition at the aspect of behavior, as well as catching hold of one's own knowledge in the process of cognition, namely a capability of Meta-cognition.

There has been more and more research evidence that has notable positive relation regarding the relationship between the learning strategy and the academic achievement; that is to say, the students who have gotten higher achievement on the schoolwork have had learning strategies better than others'. And this is inferable from the case of facilitating their schoolwork achievement by increasing students' learning strategies. We may discover, mostly, that it has had a good learning effect as shown in the practical evidence from teaching learning strategy in recent years.

Whatever a teacher or a student's learning is, according to the research of psychologists, the category of learning strategy comprises the multifarious aspects, like cognition behavior, and affectation. Of which, main contents should include learning motivation, testing strategy, self-management, test anxiety, cognition strategies, metacognition strategies and resources-seeking, etc.

Based on the foregoing, teachers have taught teaching skills for learning strategies through the path of learning (practice); teachers can mull over students' individual differences to help students practice learning strategies sufficiently during the time of teaching, so as to expand learning achievements by means of being able to solve students' learning problems. Furthermore, teachers are capable of diagnosing individual student's perplexity through the teaching of a small class to offer corrective measures of teaching and individual guidance.

Accordingly, the purposes of this research are to:

1. Revise and edit one of the "Scale of Learning Strategies of Senior High Students"
2. Research and discuss learning problems and use the teaching of learning strategies for senior high students in Taiwan, including second-grade high school students of Changhua Senior High School, as well as the learning strategies of senior high students who have discrepancies due to various factors like sex or grade level.

3. Research and edit a training project of guidance skills for learning strategy, which focuses on teachers.
4. Test the teachers who have accepted the guidance skills training of learning strategies to see whatever they carry on with the guidance of learning strategies in class.
5. Pick out the senior high students who have inferior learning strategies, and implement a small-group of counseling.

## **IMPLEMENTATION OF RESEARCH :**

This research is carried on in four parts:

1. The first part is to edit one "Scale of Learning Strategies of Senior High Students". We especially make use of senior high students in Taiwan as the population, which selects 32 schools, including provincial and private institutes, of which the student total is 2,776 people, and who are the subjects by means of a stratified random sampling. In addition, tryout, item analysis, test of reliability and validity and norm establishing allow us to realize the situation of learning strategies on senior high students in Taiwan, Republic of China.
2. The second part is to hold a seminar of learning strategies for teachers; this would include a seminar to meet the demands of this research, and to provide for teachers who teach English, Math, Physics and Chemistry to participate in the seminar. Approximately 100 people. Furthermore, inviting the professors who are good at learning strategies would allow them to confer about the common learning strategies and how to generally utilize the techniques and approaches of learning strategies in the above four subjects.
3. Teaching of learning strategies in the class: we make use of the second-grade students of Changhua Senior High School as the population. Random sampling of 5 classes as the experimental group (233 people) and 5 classes as the control group (235 people) from 10 selected classes. The content of the experimental group is to teach students the common learning strategies (such as how to concentrate while studying) and the learning strategies on each subject (such as English: how to memorize vocabulary). A chief counselor is in charge of the common learning strategies and the experienced teachers are in charge of each and every subject individually. Before and after the two-month experimental teaching, teachers can make use of "Scale of Learning Strategies



of Senior High Students" that was self-edited as the tool of evaluation so as to compare the effects between the two groups.

4. Group counseling effect & research on training of the learning strategies:

This is to screen the Changhua senior high students with the inferior learning strategies, who are the experimental subjects. Random sampling 10 persons from among the objects as the experimental group, and the other 10 persons as the control group, of which each group undergoes counseling by carrying on a 10-week experiment (one hour a week); the purpose is to confer about common learning strategies contents and practice of self-regulation learning strategies to enable them to share experiences, and for members to support one another. Firstly, testing the experimental group and the control group by "Scale of Learning Strategies of Senior High Students", and next testing the differences between two groups after practicing the experiment, will help us evaluate the effects of this experiment.

We take advantage of "Scale of Learning Strategies of Senior High Students" and "Scale of Learning Strategies of Senior High Teachers" for the tools of measurements. The various items on both of the scales help to figure the manner of score-calculating and statistical analysis of scores, according to the regulations of testing, and also carry out the data analysis by the Statistical Package for Social Science (abbreviated as SPSS).

## CONCLUSION:

1. Edited "Scale of learning strategies of senior high students"

According to the domestic and overseas scales of learning strategies and the domestic current learning situation for senior high students, we randomly samples about 2776 students from the 32 schools in order to understand the utilization of the learning strategies for senior high students. We have edited seven subscales, of which total numbers are 100 formal ones. The designation of seven subscales shows as follows: learning motivation, test strategies, self-management, test Anxiety, Cognition Strategies, Meta-cognition Strategies and Seeking resources.

Regarding the Cronbach  $\alpha$  coefficient between the total scale and

the subscale, the total scale was .63 and each subscale was between .59 and .91. while its test-retest coefficient was .69. In addition, the coefficient of the subscale of self-management was below 0.50; the rest of subscales are between 0.50 and 0.73.

## **2 Investigation & research:**

The investigation & research in this study is divided into Investigation of Senior High Students in the Taiwan Area and Investigation of Second-grade Students in Changhua Senior High School. The former one sampled 2776 students among the 32 schools with effective samples, of which the average score was 3.23 and standard deviation was .51, after the data had been analyzed, which means utilization of learning strategies for Taiwan senior high students is fine: especially better in the aspects of metacognition strategies but worse in the test anxiety and self-management. Except for test strategies for the first-grade students can reaching .05 significance level, which is only higher than the third-grade students; having no difference with the rest of the students. Furthermore, we found that cognition strategies, metacognition strategies and capabilities of dealing with test anxiety for male students are obviously higher than female students if comparing the conditions of sex: but with respect to test anxiety, the performance of female students was better than their male counter parts.

## **3. Seminar of guidance knowledge and abilities of senior high teachers:**

- (1) Learning strategies for teachers who participated in the seminar of guidance knowledge and abilities of senior high teachers have been upgraded remarkably on learning motivation, test strategies, self-management, cognition strategies and metacognition strategies; however, there are no changes on the learning strategies of test Anxiety and seeking resources.
- (2) Most teachers who participated the seminar think seminar of guidance knowledge and abilities of senior high teachers will let the useful strategies of learning motivation and self-management lower the test anxiety to acquire general and metacognition strategies, who are then able to understand seeking resources, rehearsal learning, primary deliberated thinking, complicated deliberated thinking, essential organization and complicated organization, so as to realize learning strategies on emotion and encouragement; teachers may then know how to teach students regarding learning strategies on the subjects of English, Math, Physics and Chemistry as well as improve them by

means of evaluating the the improper learning approaches to students.

4. Class guidance for learning strategies:

Class guidance for students on various learning strategies do not have any amazing effects on learning motivation, test strategies, self-management, test anxiety, cognition strategies, metacognition strategies and seeking resources.

5. Group counseling for training of learning strategies:

Group counseling of learning strategies on the various learning strategies for the experimental group, including learning motivation, test strategies, self-management, cognition strategies and metacognition strategies all have the notable effects except for test anxiety.

**Suggestions:**

1. Scale of learning strategies could be promoted, revised or researched.
2. Promote seminar activities for learning guidance knowledge & abilities to emphasize the guidance knowledge & abilities of senior high teachers.
3. Fulfill class guidance of learning strategies.
4. Guidance of learning strategies would be longer if practiced earlier.
5. Consider individual differences with group guidance.
6. Emphasize self-management and reduce the training of test anxiety.

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